SPACE TRANSPORTATION SYSTEM

SPACE SHUTTLE
PAYLOAD FLIGHT ASSIGNMENTS

March 1985

NASA
National
Aeronautics and
Space
Administration

CUSTOMER SERVICES DIVISION
WASHINGTON, D.C.

THIS DOCUMENT IS PROVIDED AS A SERVICE TO THE AEROSPACE COMMUNITY BY THE CUSTOMER SERVICES DIVISION OF NASA HEADQUARTERS. THE FIELDS OF SCIENCE, DEFENSE AND COMMUNI CATIONS HAVE SCHEDULED OVER 200 MAJOR PAYLOADS ON THE SPACE SHUTTLE.

ITS VERSATILITY COMBINED WITH COMPETITIVE PRICING MAKES THE STS THE WORLD LEADER IN LAUNCH AND RETRIEVAL SERVICES.

AMERICA'S SPACE TRANSPORTATION SYSTEM, WE DELIVER!!

SPACE TRANSPORTATION SYSTEM

SPACE SHUTTLE

PAYLOAD FLIGHT ASSIGNMENTS

MARCH 1985 BASELINE

NOTE: This schedule reflects the flight assignments as of 25-MAR-85 13:40:50. Changes will be negotiated with the payload organizations affected and will be included in the next monthly update.

APPROVED:

Chester M. Lee
Director, STS Customer Services

HEADING ABBREVIATIONS

MSSN eg 41-H	STS mission designation First digit: Last digit of fiscal year Second digit: Launch site: 1=KSC;2=VAFB Letter: Serial flight in fiscal year
DATE:	Year,Month,Day
ORBTR:	Orbiter name
INCL:	Orbit inclination
ALT:	Orbit altitude (n.m.)
CRW:	Number in crew
DUR:	Flight duration
REQ DATE:	Requested date
UF:	Utilization Factor

For further information regarding the
STS payload assignments, please address:

Chester M. Lee
Director, STS Customer Services, Mail Code MC
NASA Headquarters, Washington, DC, U.S.A. 20546
Telephone:(202)453-2347 Telex:89530

	Fy85	Fy86	Fy87	Fy88	Fy89	Fy90
Flight Rate	9	14	17	19	24	24

COMPLETED OPERATIONAL FLIGHTS

(STS-5 through STS-20)

*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
31-A	82 11 11	28.5	4	SBS-C	PAM-D		0.93
5	COLUMBIA	160	5	TELESAT-E	PAM-D		
31-B	83 4 4	28.5	4	TDRS-A	IUS/2	CFES	0.94
6	CHALLENGER	150	5			MLR,NOSL	
						GAS(3)	
31-C	83 6 18	28.5	5	SPAS-01		CFES	0.95
7	CHALLENGER	160	6	OSTA-2	MPESS	MLR	
				TELESAT-F	PAM-D	GAS(7)	
				PALAPA B-1	PAM-D		
31-D	83 8 30	28.5	5	PDRS/PFTA		CFES	0.50
8	CHALLENGER	160	6	OIM		RME	
				INSAT 1-B	PAM-D	GAS(4)	
						SSIP(1)	
41-A	83 11 30	57.0	6	SPACELAB 1	LM+1P		1.00
9	COLUMBIA	135	10				
41-B	84 2 3	28.5	5	SPAS-01A		ACES,IEF	0.71
11	CHALLENGER	165	8	PALAPA B-2	PAM-D	C-360c+b	
				WESTAR- 6	PAM-D	RME,MLR	
						GAS(5)	
						SSIP(1)	
						IRT	

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*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
41-C	84 4 6	28.5	5	LDEF-1		RME, IMAX	0.85
13	CHALLENGER	250	7	SMM REPAIR	FSS	C-360b	
						SSIP(1)	
41-D	84 8 30	28.5	6	OAST-1	MPESS	CFES III	1.00
14	DISCOVERY	160	6	SBS-D	PAM-D	IMAX	
				TELSTAR 3-C	PAM-D	RME	
				SYNCOM IV-2		SSIP(1)	
						CLOUDS	
41-G	84 10 5	57.0	7	OSTA-3	PALLET	IMAX	0.71
17	CHALLENGER	190	8	ERBS		RME	
				LFC/ORS	MPESS	GAS(8)	
						TLD	
						APE	
						CANEX	
51-A	84 11 8	28.5	5	HS-376 RETV(2)		DMOS	0.98
19	DISCOVERY	160	8	TELESAT-H	PAM-D	RME	
				SYNCOM IV-1			
51-C	85 1 24	0.0	0	DOD			1.00
20	DISCOVERY	0	0				

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MANIFESTED FLIGHTS

(STS 51-D to STS 81-D)

Commercial customers making progress payments. NASA programs with authorized budgets and DOD missions with signed Form 100's.

*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
51-D 23	85 4 12 DISCOVERY	28.5 250	7 5	TELESAT-I SYNCOM IV-3	PAM-D	CFES III AFE PPE/SAS SSIP(2) GAS(2)	1.00W
51-B 24	85 4 29 CHALLENGER	57.0 190	7 7	SPACELAB 3	LM+MPESS	GAS(2)	1.00L
51-G 25	85 6 12 DISCOVERY	28.5 190	7 7	SPARTAN-1 MORELOS-A ARABSAT-1B TELSTAR 3-D	MPESS PAM-D PAM-D PAM-D	FEE FPE ADSF GAS(6)	0.94W
51-F 26	85 7 15 CHALLENGER	50.0 202	7 7	SPACELAB 2	IC+3P		1.00D
51-I 27	85 8 10 DISCOVERY	28.5 190	7 5	MSL- 2 AUSSAT- 1 ASC- 1 SYNCOM IV-4	MPESS PAM-D PAM-D	CFES III FDE PVTOS IBSE SSIP(3)	0.98W

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TDRS RESCHEDULING UNDER REVIEW
LDEF-1 RETRIEVAL UNDER REVIEW

*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
51-J	85 9 26	0.0	0	DOD			1.00D
28	ATLANTIS	0	0				
61-A	85 10 16	57.0	8	SPACELAB D-1	LM		1.00L
29	COLUMBIA	175	7				
61-B	85 11 8	28.5	7	EOS-1		UNDER	0.96W
30	CHALLENGER	190	5	MORELOS-B	PAM-D	REVIEW	
				SATCOM KU-1	PAM-D2	GAS(2)	
				AUSSAT- 2	PAM-D		
61-C	85 12 20	28.5	7	EASE/ACCESS	MPESS	HH-G1	
32	COLUMBIA	190	7	MSL- 3	MPESS	UNDER	
				SATCOM KU-2	PAM-D2	REVIEW	
				HS 376-R	PAM-D		
51-L	86 1 22	28.5	6	SPARTAN-HALLEY	MPESS	UNDER	
33	CHALLENGER	153	4	TDRS *	IUS/2	REVIEW	
61-E	86 3 6	28.5	7	ASTRO-1	IG+2P	UNDER	
34	COLUMBIA	200	7	WESTAR- 7	PAM-D	REVIEW	

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* - TDRS RESCHEDULING UNDER REVIEW
SLS-1 UNDER REVIEW

*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
62-A	86 3 20	0.0	0	DOD			1.00D
1	DISCOVERY	0	0				
61-F	86 5 15	28.5	4	ULYSSES	'CENTAUR		0.94D
35	CHALLENGER	130	2				
61-G	86 5 21	28.5	4	GALILEO	CENTAUR		0.94W
36	ATLANTIS	130	2				
61-H	86 6 23	28.5	7	EOS-2			1.00W
37	COLUMBIA	160	7	PALAPA B-3	'PAM-D		
				STC DBS-A	PAM-D2		
				SKYNET-4A	PAM-D2		
61-I	86 7 15	28.5	7	MSL- 4	MPESS		0.92W
38	CHALLENGER	160	7	INSAT 1-C	PAM-D		
				INTELSAT VI- 1			
61-J	86 8 8	28.5	5	HUBBLE SP TELS			1.00L
39	ATLANTIS	320	3				
61-K	86 9 3	57.0	7	EOM-1/2	SM+IP+MP		
40	COLUMBIA	160	7				

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*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
61-L 41	86 9 15 CHALLENGER	28.5 160	7 7	DOD PAM- 1 ASC- 2	PAM-D2 PAM-D		0.60W
62-B 2	86 9 29 DISCOVERY	0.0 0	0 0	DOD			1.00D
71-A 42	86 10 22 ATLANTIS	28.5 160	5 7	SHEAL- 1 SPARTAN-2 TDRS *	 MPESS IUS/2		0.96D
71-B 43	86 10 30 COLUMBIA	28.5 160	7 7	MSL- 5 ASTRO-2 GSTAR-C	MPESS IG+2P PAM-D2		0.84W
71-C 44	86 12 5 CHALLENGER	0.0 0	0 0	DOD			1.00D
71-D 45	86 12 15 ATLANTIS	28.5 160	6 7	SPARTAN-3 DOD PAM- 2 STC DBS-B SKYNET-4B	MPESS PAM-D2 PAM-D2 PAM-D2		1.00W

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* - TDRS RESCHEDULING UNDER REVIEW

*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
71-E 46	87 1 7 COLUMBIA	28.5 160	5 7	MSL- 6 INTELSAT VI- 2 PL OPPTY	MPESS		0.80W
71-F 47	87 2 3 CHALLENGER	57.0 245	5 7	LDEF-2 (HNC)			0.79W
71-G 48	87 2 25 ATLANTIS	28.5 160	7 7	SLS- 2	LM		
71-H 49	87 3 9 COLUMBIA	28.5 160	5 7	MSL- 7 DOD PAM- 3 PL OPPTY	MPESS PAM-D2		
71-I 50	87 4 2 CHALLENGER	28.5 160	5 7	DOD PAM- 4 DOD PAM- 5 SATCOM KU-4	PAM-D2 PAM-D2 PAM-D2		
71-J 51	87 4 9 ATLANTIS	28.5 160	5 7	MSL- 8 PL OPPTY OR INTELSAT VI- 3	MPESS		

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*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
71-K 52	87 5 7 COLUMBIA	57.0 160	7 7	IML- 1	LM		
71-L 53	87 6 9 CHALLENGER	28.5 193	5 7	OAST-3 DOD PAM- 6 CRRES	MPESS PAM-D2		
71-M 54	87 6 23 ATLANTIS	0.0 0	0 0	DOD			1.00D
71-N 55	87 7 15 COLUMBIA	28.5 160	7 7	ASTRO-3 DOD PAM- 7 PL OPPTY	'IG+2P PAM-D2		
71-O 56	87 8 4 CHALLENGER	28.5 160	5 7	DOD PAM- 8 PL OPPTY	'PAM-D2		
71-P 57	87 9 15 ATLANTIS	0.0 0	0 0	DOD			1.00D
71-Q 58	87 9 21 COLUMBIA	57.0 256	6 7	MSL- 9 SUNLAB- 1 ROSAT	MPESS IG+1P		

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*** SHUTTLE FLIGHT ASSIGNMENTS FOR PAYLOADS ***
MARCH 1985 BASELINE

MSSN	DATE ORBTR	INCL ALT	CRW DUR	PAYLOAD	CARRIER	OTHER PAYLOADS	UF
81-A 59	87 10 12 CHALLENGER	0.0 0	0 0	DOD			1.00D
81-B 60	87 11 9 ATLANTIS	28.5 160	5 7	MSL-10	MPESS		
				LAGEOS- 2	IRIS		
				PL OPPTY OR			
				INTELSAT VI- 4			
81-C 61	87 11 23 COLUMBIA	28.5 160	5 7	EOM-3	IG+1P		
				DOD PAM- 9	PAM-D2		
				RCA DBS-4			
				PL OPPTY OR			
				SBS- 6	PAM-D		
81-D 62	87 12 14 CHALLENGER	28.5 160	6 7	DOD PAM-10	PAM-D2		
				DOD PAM-11	PAM-D2		
				GALAXY KU-1			

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STS CUSTOMER REQUIREMENTS

Commercial customers who have made earnest money payments but have not begun making progress payments. Commercial customers will be added to shuttle flights with receipt of progress payments. NASA programs with authorized budgets and DOD missions with signed Form 100's.

STS CUSTOMER REQUIREMENTS FOR 1987

MONTH	COMMERCIAL REQUIREMENTS	BOOKING DATE
MARCH	USAT-1	84 9 15
APRIL	INTELSAT VI-3	81 3 16
JULY	INTELSAT VI-4	83 2 15
AUGUST	USAT-2	84 9 15
SEPTEMBER	ASC-3	83 12 2
OCTOBER	STC DBS-D C2-SPACELINES	83 11 1 84 9 20
NOVEMBER	STC DBS-E SBS-6	84 4 13 83 7 5

STS CUSTOMER REQUIREMENTS FOR 1988

MON	COMMERCIAL REQUIREMENTS	BOOKING DATE	DOD REQUIREMENTS	NASA REQUIREMENTS	OTHER REQUIREMENTS
JAN	CBSC- 1	84 10 15	DOD	CFMF- 1	NONE
	ORION-A	84 3 28			
	SPACELAB J	81 6 1			
	WESTAR- 8	84 1 19			
FEB	STC DBS-F	84 5 31	DOD PAM-12	MSL-11	NONE
MAR	EURECA	84 12 4	DOD PAM-13	NONE	NONE
	UNISAT- 1	84 10 25			
	USAT-3	83 7 14			
	WESTAR-A	84 1 19			
APR	ORION-B	84 5 31	DOD	COBE	NONE
	RCA DBS-5	81 9 2	DOD PAM-14	MSL-12	
				OSTA-7	
				URM	
MAY	STC DBS-C	84 7 31	NONE	GRO	NONE
	TELESAT-K	81 7 6			
	UNISAT- 2	84 10 25			
JUN	ITALSAT-1	83 5 10	DOD PAM-15	CFMF- 2	NONE
	TELSTAR 3-B	83 11 30			
	USSB-A	85 1 21			
	WESTAR-B	84 1 19			
JUL	ORION-C	84 9 25	DOD PAM-16	MSL-13	NONE

STS CUSTOMER REQUIREMENTS FOR 1988

MON	COMMERCIAL REQUIREMENTS	BOOKING DATE	DOD REQUIREMENTS	NASA REQUIREMENTS	OTHER REQUIREMENTS
JUL	SBTS-A3	82 8 25		SLS- 3	
	SPACELAB D-2	84 6 22			
	SPACENET-D	85 1 23			
	UNISAT- 3	84 10 25			
AUG	RCA DBS-2	84 4 2	DOD	LEASECRAFT-101	NONE
SEP	CBSC- 2	84 10 15	DOD	TSS-1	NONE
	EURECA RETR	84 12 4	DOD PAM-17		
	USSB-B	85 1 21			
OCT	ORION-D	85 3 11	DOD PAM-18	MSL-14	NONE
	SPACELAB D-4	84 4 9		SHEAL- 2	
NOV	GALAXY KU-2	84 9 1	DOD PAM-19	EOM-4	NONE
DEC	NONE		DOD	EUVE	NONE
			DOD	OSTA-9	
			DOD		

STS CUSTOMER REQUIREMENTS FOR 1989

MON	COMMERCIAL REQUIREMENTS	BOOKING DATE	DOD REQUIREMENTS	NASA REQUIREMENTS	OTHER REQUIREMENTS
JAN	FORDSAT-1	85 11 1	DOD PAM-20	MSL-15	NONE
	WESTAR- 9	84 1 19			
FEB	NONE		DOD PAM-21	IML- 2	NONE
				LEASECRAFT-RET	
MAR	WESTAR-C	84 1 19	NONE	CFMF- 3	NONE
				MSL-16	
				SUNLAB- 2	
APR	FORDSAT-2	85 11 1	DOD	NONE	NONE
	INTELSAT VI- 5	81 3 16	DOD PAM-22		
MAY	NONE		NONE	MSL-17	NONE
JUN	NONE		DOD	LDEF-2 RETR	NONE
				OSTA-11	
JUL	FORDSAT-3	85 11 1	DOD	MAST- 1	NONE
	INTELSAT VI- 6	81 3 16	DOD	MSL-18	
	TELESAT-L	81 7 6			
AUG	NONE		NONE	HUB SP TEL RET	NONE
				LEASECRAFT-102	
SEP	RCA DBS-1	84 4 2	DOD	ACTS	NONE
	SBTS-A4	82 8 25		MSL-19	

STS CUSTOMER REQUIREMENTS FOR 1989

MON	COMMERCIAL REQUIREMENTS	BOOKING DATE	DOD REQUIREMENTS	NASA REQUIREMENTS	OTHER REQUIREMENTS
SEP				SLS- 4	
OCT	INTELSAT VI- 7	81 3 16	NONE	UARS	GOES-I NOAA-K
NOV	NONE		NONE	EOM-5	NONE
DEC	SAX	84 10 31	NONE	SP PLASMA- 1	NONE

STS CUSTOMER REQUIREMENTS FOR 1990

MON	COMMERCIAL REQUIREMENTS	BOOKING DATE	DOD REQUIREMENTS	NASA REQUIREMENTS	OTHER REQUIREMENTS
JAN	INTELSAT VI- 8 WESTAR-10	81 3 16 84 1 19	NONE	SUNLAB- 3	GOES-J
APR	INTELSAT VI- 9	81 3 16	NONE	OMV	NONE
JUN	SATCOM KU-3	85 2 1	NONE	NONE	NONE
JUL	NONE		NONE	MAST- 2	NONE
AUG	NONE		NONE	NONE	NOAA-L
OCT	INTELSAT VI-10	81 3 16	NONE	EOM-6 SHEAL- 3	NONE
NOV	TELESAT-M	81 7 6	NONE	NONE	NONE
DEC	NONE		NONE	RADARSAT	NONE

SPACE SHUTTLE CREW ASSIGNMENTS

C - COMMANDER
P - PILOT
MS - MISSION SPECIALIST
PS - PAYLOAD SPECIALIST
SFP - SPACE FLIGHT PARTICIPANT

STS-1	C:	JOHN W. YOUNG (USN, RET.)
LAUNCH: 12 APR 1981	P:	ROBERT L. CRIPPEN (CAPT., USN)
LANDING: 14 APR 1981		
COLUMBIA		
STS-2	C:	JOE H. ENGLE (COL., USAF)
LAUNCH: 12 NOV 1981	P:	RICHARD H. TRULY (CAPT., USN)
LANDING: 14 NOV 1981		
COLUMBIA		
STS-3	C:	JACK R. LOUSMA (COL., USMC)
LAUNCH: 22 MAR 1982	P:	CHARLES G. FULLERTON (COL., USAF)
LANDING: 30 MAR 1982		
COLUMBIA		
STS-4	C:	THOMAS K. MATTINGLY II (CAPT., USN)
LAUNCH: 27 JUN 1982	P:	HENRY W. HARTSFIELD, JR. (USAF, RET.)
LANDING: 4 JUL 1982		
COLUMBIA		
STS-5	C:	VANCE D. BRAND (CIVILIAN)
LAUNCH: 11 NOV 1982	P:	ROBERT F. OVERMYER (COL., USMC)
LANDING: 16 NOV 1982	MS:	JOSEPH P. ALLEN (PhD - PHYSICS)
COLUMBIA	MS:	WILLIAM B. LENOIR (PhD - SCIENCE)
STS-6	C:	PAUL J. WEITZ (CAPT., USN, RET.)
LAUNCH: 4 APR 1983	P:	KAROL J. BOBKO (COL., USAF)
LANDING: 9 APR 1983	MS:	DONALD H. PETERSON (COL., USAF, RET.)
CHALLENGER	MS.	F. STOREY MUSGRAVE (M.D.)

STS-7	C:	ROBERT L. CRIPPEN (CAPT., USN)
LAUNCH: 18 JUN 1983	P:	FREDERICK H. HAUCK (CAPT., USN)
LANDING: 24 JUN 1983	MS:	JOHN M. FABIAN (COL., USAF)
CHALLENGER	MS:	SALLY K. RIDE (PhD - PHYSICS)
	MS:	NORMAN E. THAGARD (M.D.)
STS-8	C:	RICHARD H. TRULY (CAPT., USN)
LAUNCH: 30 AUG 1983	P:	DANIEL C. BRANDENSTEIN (CDR., USN)
LANDING: 5 SEP 1983	MS:	DALE A. GARDNER (LT. CDR., USN)
CHALLENGER	MS:	GUION S. BLUFORD (MAJ., USAF)
	MS:	WILLIAM E. THORNTON (M.D.)
STS-9	C:	JOHN W. YOUNG (USN, RET.)
LAUNCH: 28 NOV 1983	P:	BREWSTER H. SHAW, JR. (MAJ., USAF)
LANDING: 8 DEC 1983	MS:	OWEN K. GARRIOTT (PhD - ELECTRICAL ENGINEERING)
COLUMBIA	MS:	ROBERT A. PARKER (PhD - ASTRONOMY)
	PS:	ULF MERBOLD, ESA (PHYSICIST)
	PS:	BYRON K. LICHTENBERG, MIT (PhD - BIOMEDICAL ENGINEERING)
41-B	C:	VANCE D. BRAND (CIVILIAN)
LAUNCH: 3 FEB 1984	P:	ROBERT L. GIBSON (LT. CDR., USN)
LANDING: 11 FEB 1984	MS:	BRUCE McCANDLESS II (CDR., USN)
CHALLENGER	MS:	ROBERT L. STEWART (MAJ., USA)
	MS:	RONALD E. McNAIR (PhD - PHYSICS)
41-C	C:	ROBERT L. CRIPPEN (CAPT., USN)
LAUNCH: 6 APR 1984	P:	FRANCIS R. SCOBEE (USAF, RET.)
LANDING: 13 APR 1984	MS:	GEORGE D. NELSON (PhD - ASTRONOMY)
CHALLENGER	MS:	TERRY J. HART (M.S. - ELECTRICAL ENGINEERING)
	MS:	JAMES D. VAN HOFTEN (PhD - FLUID MECHANICS)
41-D	C:	HENRY W. HARTSFIELD (USAF, RET.)
LAUNCH: 29 AUG 1984	P:	MICHAEL L. COATS (LT. CDR., USN)
LANDING: 4 SEP 1984	MS:	RICHARD A. MULLANE (MAJ., USAF)
DISCOVERY	MS:	STEVEN A. HAWLEY (PhD - ASTRONOMY/ASTROPHYSICS)
	MS:	JUDITH A RESNICK (PhD - ELECTRICAL ENGINEERING)
	PS:	CHARLES D. WALKER (McDONNELL DOUGLAS)

41-G	C:	ROBERT L. CRIPPEN (CAPT., USN)
LAUNCH: 5 OCT 1984	P:	JON A. McBRIDE (CDR., USN)
LANDING: 13 OCT 1984	MS:	KATHRYN D. SULLIVAN (PhD - GEOLOGY)
CHALLENGER	MS:	SALLY K. RIDE (PhD - PHYSICS)
	MS:	DAVID C. LEESTMA (LT. CDR., USN)
	PS:	MARC GARNEAU (NRCC, CANADA)
	PS:	PAUL D. SCULLY-POWER (U.S. NAVY CIVILIAN)
51-A	C:	FREDERICK H. HAUCK (CAPT., USN)
LAUNCH: 7 NOV 1984	P:	DAVID M. WALKER (CDR., USN)
LANDING: 15 NOV 1984	MS:	ANNA L. FISHER (M.D.)
DISCOVERY	MS:	DALE A. GARDNER (LT. CDR., USN)
	MS:	JOSEPH P. ALLEN (PhD - PHYSICS)
51-C	C:	THOMAS K. MATTINGLY II (CAPT., USN)
LAUNCH: 24 JAN 1985	P:	LOREN J. SHRIVER (LT. COL., USAF)
LANDING: 27 JAN 1985	MS:	JAMES F. BUCHLI (LT. COL., USMC)
DISCOVERY	MS:	ELLISON S. ONIZUKA (MAJ., USAF)
	PS:	GARY E. PAYTON (MAJ., USAF)
51-D	C:	KAROL J. BOBKO (COL., USAF)
LAUNCH: 12 APR 1985	P:	DONALD E. WILLIAMS (CDR., USN)
LANDING: 17 APR 1985	MS:	M. RHEA SEDDON (M.D.)
DISCOVERY	MS:	JEFFREY A. HOFFMAN (PhD - ASTROPHYSICS)
	MS:	S. DAVID GRIGGS (COL., USAF)
	PS:	CHARLES D. WALKER (McDONNELL DOUGLAS)
	PS:	E. JAKE GARN (U.S. SENATE)
51-B	C:	ROBERT F. OVERMYER (COL., USMC)
LAUNCH: 29 APR 1985	P:	FREDERICK D. GREGORY (LT. COL., USAF)
LANDING: 6 MAY 1985	MS:	DON L. LIND (PhD - HIGH ENERGY NUCLEAR PHYSICS)
CHALLENGER	MS:	NORMAN E. THAGARD (M.D.)
	MS:	WILLIAM E. THORNTON (M.D.)
	PS:	LODEWIJK VAN DEN BERG (EG&G CORP.)
	PS:	TAYLOR G. WANG (JET PROPULSION LABORATORY)

51-G	C:	DANIEL C. BRANDENSTEIN (CAPT., USN)
LAUNCH: 12 JUN 1985	P:	JOHN O. CREIGHTON (CDR., USN)
LANDING: 19 JUN 1985	MS:	SHANNON W. LUCID (PhD - BIOCHEMISTRY)
DISCOVERY	MS:	STEVEN R. NAGEL (LT. COL.,USAF)
	MS:	JOHN M. FABIAN (COL.,USAF)
	PS:	PAYLOAD SPECIALIST
	PS:	PATRICK BAUDRY (FRANCE)
51-F	C:	CHARLES G. FULLERTON (COL., USAF)
LAUNCH: 15 JUL 1985	P:	ROY D. BRIDGES (COL., USAF)
LANDING: 22 JUL 1985	MS:	F. STORY MUSGRAVE (M.D.)
CHALLENGER	MS:	ANTHONY W. ENGLAND (PhD - EARTH & PLANETARY SCIENCE)
	MS:	KARL G. HENIZE (PhD - ASTRONOMY)
	PS:	LOREN W. ACTON (LOCKHEED)
	PS:	JOHN-DAVID BARTOE (U.S. NAVY CIVILIAN)
51-I	C:	JOE H. ENGLE (COL., USAF)
LAUNCH: 10 AUG 1985	P:	RICHARD O. COVEY (LT. COL., USAF)
LANDING: 15 AUG 1985	MS:	JAMES VAN HOFTEN (PhD - FLUID MECHANICS)
DISCOVERY	MS:	JOHN M. LOUNGE (M.S. - ASTROPHYSICS)
	MS:	WILLIAM F. FISHER (M.D.)
	PS:	GREGORY JARVIS (HUGHES)
	PS:	CHARLES D. WALKER (McDONNELL DOUGLAS)
51-J	C:	KAROL BOBKO (COL., USAF)
LAUNCH: 26 SEP 1985	P:	RONALD J. GRABE (LT. COL., USAF)
LANDING:	MS:	ROBERT STEWART (COL., USA)
ATLANTIS	MS:	DAVID HILMERS (MAJ., USMC)
61-A	C:	HENRY W. HARTSFIELD (USAF, RET.)
LAUNCH: 16 OCT 1985	P:	STEVEN R. NAGEL (MAJ., USAF)
LANDING: 23 OCT 1985	MS:	JAMES F. BUCHLI (LT. COL., USMC)
COLUMBIA	MS:	GUION S. BLUFORD, JR. (LT. COL., USAF)
	MS:	BONNIE J. DUNBAR (PhD - BIOMEDICAL ENGINEERING)
	PS:	REINHARD FURRER (DFVLR) (GERMAN)
	PS:	ERNST MESSERSCHMID (DFVLR) (GERMAN)
	PS:	WUBBO OCKELS (DFVLR) (DUTCH)

61-B	C:	BREWSTER H. SHAW, JR. (LT. COL., USAF)
LAUNCH: 8 NOV 1985	P:	BRYAN D. O'CONNOR (LT. COL., USMC)
LANDING: 13 NOV 1985	MS:	MARY L. CLEAVE (PhD - CIVIL ENGINEERING)
CHALLENGER	MS:	SHERWOOD C. SPRING (LT. COL., USA)
	MS:	JERRY L. ROSS (MAJ., USAF)
	PS:	MEXICAN PAYLOAD SPECIALIST (MORELOS)
	PS:	TO BE DETERMINED
61-C	C:	FRANCIS R. SCOBEE (USAF, RET.)
LAUNCH: 20 DEC 1985	P:	MICHAEL J. SMITH (CDR., USN)
LANDING: 27 DEC 1985	MS:	JUDITH A. RESNICK (PhD - ELECTRICAL ENGINEERING)
COLUMBIA	MS:	ELLISON ONIZUKA (MAJ., USAF)
	MS:	RONALD E. MCNAIR (PhD - PHYSICS)
	PS:	RCA PAYLOAD SPECIALIST
	PS:	TO BE DETERMINED
51-L	C:	ROBERT L. GIBSON (LT. CDR., USN)
LAUNCH: 22 JAN 1986	P:	CHARLES F. BOLDEN JR. (MAJ., USMC)
LANDING: 26 JAN 1986	MS:	FRANKLIN R. CHANG-DIAZ (PhD - PLASA PHYSICS)
CHALLENGER	MS:	STEVEN A. HAWLEY (PhD - ASTROPHYSICS)
	MS:	GEORGE D. NELSON (PhD - ASTRONOMY)
	SPP:	TEACHER IN SPACE PROJECT
61-E	C:	JON A McBRIDE (CDR., USN)
LAUNCH: 6 MAR 1986	P:	RICHARD N. RICHARDS (LT. CDR., USN)
LANDING: 13 MAR 1986	MS:	ROBERT A. R. PARKER (PhD)
COLUMBIA	MS:	DAVID C. LEESTMA (LT. CDR., USN)
	MS:	JEFFREY A. HOFFMAN (PhD)
	PS:	ASTRO PAYLOAD SPECIALIST
	PS:	ASTRO PAYLOAD SPECIALIST
62-A	C:	ROBERT L. CRIPPEN (CAPT., USN)
LAUNCH: 20 MAR 1986	P:	GUY S. GARDNER (LT. COL., USAF)
LANDING:	MS:	DALE A. GARDNER (CDR., USN)
DISCOVERY	MS:	JERRY L. ROSS (MAJ., USAF)
	MS:	RICHARD M. MULLANE (LT. COL., USAF)
61-F	CREW ASSIGNMENT UNDER REVIEW	
LAUNCH: 15 MAY 1986		
LANDING: 17 MAY 1986		
CHALLENGER		

61-G		CREW ASSIGNMENT UNDER REVIEW
LAUNCH:	21 MAY 1986	
LANDING:	23 MAY 1986	
ATLANTIS		
61-H		C: MICHAEL L. COATS (CDR., USN)
LAUNCH:	23 JUN 1986	P: JOHN E. BLAHA (COL, USAF)
LANDING:	30 JUN 1986	MS: ANNA L. FISHER (M.D.)
COLUMBIA		MS: NORMAN E. THAGARD (M.D.)
		MS: ROBERT C. SPRINGER (LT. COL., USMC)
		PS: INDONESIAN PAYLOAD SPECIALIST
		PS: UNITED KINGDOM PAYLOAD SPECIALIST (SKYNET)
61-I		CREW ASSIGNMENT UNDER REVIEW
LAUNCH:	15 JUL 1986	PS: INDIAN PAYLOAD SPECIALIST
LANDING:	22 JUL 1986	PS: CANADIAN PAYLOAD SPECIALIST
CHALLENGER		
61-J		C: UNDER REVIEW
LAUNCH:	8 AUG 1986	P: UNDER REVIEW
LANDING:	11 AUG 1986	MS: KATHRYN SULLIVAN (PhD - GEOLOGY)
ATLANTIS		MS: STEVEN HAWLEY (PhD - ASTRONOMY/ASTROPHYSICS)
		MS: BRUCE McCANDLESS (CDR., USN)
61-K		CREW ASSIGNMENT UNDER REVIEW
LAUNCH:	3 SEP 1986	PS: MICHAEL LAMPTON (PhD - U. C.-BERKELEY)
LANDING:	10 SEP 1986	PS: BYRON K. LICHTENBERG (PhD - MIT)
COLUMBIA		
61-L		CREW ASSIGNMENT UNDER REVIEW
LAUNCH:	15 SEP 1986	PS: ASC PAYLOAD SPECIALIST
LANDING:	22 SEP 1986	PS: DOD PAYLOAD SPECIALIST
CHALLENGER		

PAYLOAD ACRONYM LIST

ACRONYM	NAME	DESCRIPTION
ACES	Acoustic Containerless Experiment System	technical demonstration to obtain early microgravity tests of gas transport phenomena in a 3-axis levitation furnace.
ACTS	Advanced Communication Technology Satellite	flight verification of high risk communications technology to support future communication systems.
ADSF	Automatic Directional Solidification Furnace	technology demonstration of directional solidification of magnetic materials, immiscibles, and IR detection materials.
AFE	American Flight Echocardiograph	collects quantitative in-flight data on cardiovascular changes in the crew.
ALE	Atmospheric Luminosity Experiment	investigates the ion chemistry of the atmosphere and orbiter surfaces.
APE	Aurora Photography Experiment	enhance understanding of the geographic extent and dynamics of the aurora.
ARABSAT	ARAB Satellite	Saudi Arabian Communications Satelite.
ARC	Aggregation of Red Cells	studies aggregation of red cells and blood viscosity under low-g conditions.
ART	Amateur Radio Transceiver	establishes communication between radio operator on the Shuttle and operator on the ground.
ASC	American Satellite Company	provides commercial communication service via satellite to CONUM, Hawaii, Alaska, and Puerto Rico.
ASTRO	Ultraviolet Astronomy Telescope (formerly OSS-3)	three-mission program designed to obtain UV data on astronomical objects.

AUSSAT	Australian Communication Satellite	direct broadcast communication satellite which provides services to continental Australia and off-shore territories.
BRE	Blood Rheology Experiment	technology demonstration of this apparatus to study aggregation of red blood cells and blood viscosity under low-g conditions.
C2-SPACELINES	Commercial Cargo Spacelines	performs launch and other required services for C2 mixed cargo.
C-360	Cinema-360	35mm motion picture camera for the purpose of photographing crew and mission activities.
CANEX	Canadian Payload Specialist Experiment	experiment package flown with Canadian payload specialists on mission 41-G.
CBSC	China Broadcasting Satellite	television and sound broadcasting satellite.
CENTAUR	Centaur	General Dynamics hydrogen/oxygen upper stage.
CFES	Continuous Flow Electrophoresis System	demonstrates the technology of pharmaceutical processing in space.
CFMF	Cryogenic Fluid Management Facility	re-usable research facility to establish technology base for 0-g cryogenic fluid management system.
CLOUDS	Structures Photography Experiments	cloud formation, dissipation and opaqueness observations.
COBE	Cosmic Background Explorer	study the diffuse radiation of the universe.
CPL	Capillary Pump Loop Explorer	determine 0-g performance of a capillary pump loop heat acquisition system.

CRRES	Combined Release and Radiation Effects Satellite	study the upper atmosphere and ionosphere by releasing trace metal vapors.
DBS	Direct Broadcast Satellite	
DBS LUX		Radio-Tele-Luxembourg direct broadcast satellite.
DMOS	Diffusive Mixing of Organic Solutions	grow crystals of organic compounds for research programs within the 3M Corporation's Science Research Laboratory.
DOD	Department of Defense	
EASE/ACCESS	Experimental Assembly of Structures in EVA/Assembly Concept for Construction of Erectable Space Structures	measures the human factors while assembling structures in space during EVA.
EEVT	Electrophoresis Equipment Verification Test	technology demonstration of apparatus to evaluate the effects of electrophoresis of biological cells in 0-g.
EML	Electromagnetic Levitation Payload	technology demonstration to observe the flow of the surface of a containerless molten metal.
EOM	Environmental Observation Mission	measure long term variability in the total energy radiated by the sun and determine the variability in the solar spectrum.
EOS	Electrophoresis Operation in Space	produce pharmaceuticals for large scale tests leading to FDA approval and commercial production.
ERBS	Earth Radiation Budget Satellite	collects global earth radiation budget data.
EURECA	Europe Retrievable Carrier	platform placed in orbit for six months offering conventional services to experimenters.

EUVE	Extreme Ultraviolet Experiment	survey the sky in the EUV band (100 - 1,000 angstrom).
FDE	Fluid Dynamics Experiment	
FEE (formerly ECHO)	French Echocardiograph Equipment	obtains on-orbit cardiovascular system data.
FORDSAT		Ford Aerospace Corporation communication satellite.
FPE	French Postural Experiment	studies sensory-motor adaptations in weightlessness.
FTDI	Fluid Transfer Dynamic Investigation	evaluates fluid dynamics associated with filling capillary/screen retention propellant tanks.
GALAXY-KU	GALAXY-KU Band	Hughes domestic and commercial communication satellite.
GALILEO	GALILEO	investigates the chemical compostion and physical state of Jupiter's atmosphere and satellites.
GARD	Gamma Radiation Detection	measures gamma radiation levels in the Shuttle environment.
GAS	Get Away Special	small self-contained payload containers providing conventional support to experiments.
GAS BRIDGE	Get Away Special Bridge	structure in the payload bay that can hold up to twelve GAS canisters.
GLOW	GLOW	atmospheric luminosities inestigation.
GOES	Geostationary Operational Environmental Satellite	provides continuous weather coverage of the western hemisphere.
GPS	Global Positioning System	DOD navigation and positioning system.
GRO	Gamma Ray Observatory	investigate extraterrestrial gamma-ray sources.

GSTAR	GSTAR	GTE (General Telephone and Electronics Satellite Corp.) communications satellite.
HBT	Heflex Bioengineering Test	determines proper soil moisture content for maximum growth in 0-g.
HH-G	Hitchhiker (Goddard Space Flight Center version)	GSFC payload carrier for intermediate size experiments attached to the sill of the cargo bay.
HH-M	Hitchhiker (Marshall Space Flight Center version)	MSfC payload carrier for intermediate size experiments attached in the shuttle bay.
HNC	Heavy Nuclei Collector	obtains a sample of actinide nuclei (thorium, uranium, etc.) in cosmic radiation.
HST	Hubble Space Telescope	observes the universe to gain information about its origin, evolution and disposition of stars, galaxies, etc.
IBSE	Initial Blood Storage Equipment	evaluates changes in blood tissue during various storage conditions.
IEF	Isoelectric Focussing Experiment	gather experimental data on the extent of electro-osmosis in space.
IMAX	Imax, Inc. of Toronto, Ontario, Canada	produces motion pictures of orbiter launch, inflight operations and landings suitable for viewing in IMAX theaters such as the Smithsonian.
IML	International Microgravity Laboratory	microgravity missions devoted to material sciences and life sciences studies.
INSAT	Indian National Satellite System	communication and meteorological satellite.
INTELSAT	International Tele-communications Satellite	international telecommunications satellite network.

IOCM	Interim Operational Contamination Monitor	measures molecular and particle contamination in the Shuttle bay.
IRAS	Infrared Astronomical Satellite	infrared telescope.
IRIS	Italian Research Interim Stage	an expendable vehicle capable of placing payloads up to 60 kg into orbit.
IRT	Integrated Rendezvous Radar Target	a target for testing of Shuttle orbiter rendezvous techniques and capabilities in orbit.
ISAL	Investigation of STS Atmospheric Luminosities	determine the spectral content of the orbital luminosity.
ISTP	International Solar Terrestrial Program	performs optical and in-site measurements on the outer atmosphere of the sun, the solar interior, the corona and the solar wind.
ITALSAT	Italian Communication Satellite System	satellite housing telecommunication and propagation experiments.
IUS	Inertial Upper Stage	solid rocket booster developed to place satellites in high orbits.
LAGEOS	Laser Geodynamics Satellite	high precision geographical measurements.
LANDSAT		earth resources monitoring satellite.
LDEF	Long Duration Exposure Facility	free-flying satellites providing accommodations for experiments requiring long-duration exposure to the space environment.
LDEF RETR	Long Duration Exposure Facility Retrieval	retrieve and return the LDEF to earth so results may be analyzed.

LEASECRAFT	Leasecraft	Fairchild modular utility satellite - a shuttle-serviced, low-orbiting space platform for lease.
LFC	Large Format Camera	acquire synoptic, high-resolution images of the Earth's surface.
LM	Long Module	Spacelab element composed of a core segment and an experiment segment.
LS-D	Landsat Repair (Landsat D)	rendezvous, capture, repair, and deploy a Landsat D spacecraft using the STS.
MARC-DN	Measurement of Atmospheric Radiance Camera-Day/Night	test fly TV camera against celestial, earthlimb and ground targets with various lighting conditions.
MAST	Structural Technology Demonstration	demonstrate structural integrity through deployment, retraction and restowage, and develop techniques for distributed control and adaptive control methods.
MEA	Materials Equipment Assembly	conducts materials processing experiments in low-g environment.
MLR	Monodisperse Latex Reactor	produces monodisperse latex particles in the two to forty micron range.
MORELOS	MORELOS	Mexican communication satellite system.
MPESS	Mission Peculiar Experiment Support Structure	experiment carrier.
MSL	Materials Science Laboratory	performs materials processing experiments in low-g.
NOAA	National Oceanic and Atmospheric Administration	provides continuation of Polar Operational Meteorological Satellite System for the Department of Commerce (NOAA).
NOSL	Night/Day Optical Survey of Lightning	optical survey of lightning.

OASIS	OEX (orbiter experiments) Autonomous Supporting Instrumentation System	independent system that can be flown with a payload to acquire and store environment data.
OAST	Office of Aeronautics and and Space Technology	demonstration of a large light-weight solar array which is capable of being restowed in flight.
OIM	Oxygen Interaction with Materials	
OMV	Orbital Maneuvering Vehicle	supplements the STS capability for satellite payload delivery, retrieval and maneuvering.
OPEN	Origin of Plasmas in Earth's Neighborhood	obtain the first quantitative assessment of the flow of energy through the geospace environment.
ORION	Orion	Orion Satellite Corporation communications satellite.
ORS	Orbiter Refueling System	demonstrates STS's ability to perform on-orbit satellite refueling.
OSS-2 DXS	Office of Space Science Diffuse X-Ray Spectrometer	conducts x-ray observations on a variety of objects in the 44 to 84 angstrom wavelength region.
OSS-3	Office of Space Science (currently ASTRO)	obtain UV data on astronomical objects.
OSTA-2	Office of Space and Terrestrial Applications	cooperative mission with the Federal Republic of Germany on materials processing experiments in low-gravity.
OSTA-3/5/7	Office of Space and Terrestrial Applications	acquire photographic and radar images of the Earth's surface.
PALAPA	Indonesian Communication Satellite	synchronous satellite communication system for the Republic of Indonesia.

PAM-A	Payload Assist Module A	upper stage designed to deliver up to 4400 lbs to a geosynchronous transfer orbit.
PAM-D	Payload Assist Module D	upper stage designed to deliver up to 2320 lbs to a geosynchronous transfer orbit.
PAM-D II	Payload Assist Module D II	McDonnell Douglas payload assist module with 63 in. solid PKM.
PDRS/PFTA	Payload Deployment and Retrieval System/Payload Flight Test Article	first object to be deployed and retrieved by the remote manipulator system and is used to test reaction of RMS joints.
PPE	Phase Partitioning Experiment	study separation behavior of two phase systems generated by the mixture in water of polyglucose and polyethylene glycol.
PVTOS	Physical Vapor Transport of Organic Solids	grow crystaline films on selected substrates of organic solids.
RADARSAT	RADARSAT	collaborative program designed to remotely monitor the oceans, ice and land over a five year period.
RCA DBS	RCA Direct Broadcasting System	satellite system for Radio Corporation of America.
RME	Radiation Monitoring Equipment (formerly Space Radiation Test)	measures gamma radiation levels in the Shuttle environment.
ROSAT	Roentgensatellit	conducts an all-sky survey.
SAS	Space Adaptation Syndrom	measures vestibular function, motion sickness susceptibility and spatial orientation ability during prolonged weightlessness.
SATCOL		Colombian communications satellite.

SATCOM		RCA communications satellite.
SAX	X-Ray Astronomy Satellite	scientific study of celestial x-ray sources.
SBS	Satellite Business Systems	all digital domestic communication system servicing large industry, the government, etc.
SBTS-A4		Brazilian telecommunications satellite system.
SEMS	Shuttle Environment Monitoring System	measures Space Shuttle cargo bay environment under launch, flight, and landing conditions.
SHEAL	Shuttle High Energy Astrophysics Laboratory	study of astronomical objects, obtaining images, spectra and timing data on celestial x-ray sources.
SIRTF	Shuttle Infrared Telescope Facility	facility which hosts experiments that increase our understanding of the formation and evolution of stars, planets, galaxies, and unusual galactic objects.
SKYNET	United Kingdom Communication Satellite	military communication satellite for the Royal Navy.
SL 1	Spacelab 1	demonstrate Spacelab's capabilities for multidisciplinary research.
SL 2	Spacelab 2	demonstrate Spacelab's capabilities for multidisciplinary research and verify system performance.
SL 3	Spacelab 3	dedicated materials processing mission emphasizing 0-g research.
SLS-1	Space Life Sciences Laboratory 1	investigate the effects of weightlessness exposure using both man and animal specimans.
SLS-2	Space Life Sciences Laboratory 2	reflight of SLS-1.

SLS-3	Space Life Sciences Laboratory 3	exploration of the effects of acute weightlessness on living systems.
SLS-4	Space Life Sciences Laboratory 3	generic life sciences laboratory mission.
SMRM	Solar Maximum Repair Mission	conducts a technology demonstration of the STS capability to rendezvous, service, checkout and deploy.
SOT	Solar Optical Telescope	performs very high spatial resolution observations of the sun.
SPACELAB D-1	German Spacelab Mission D-1	first dedicated DFVLR mission (Deutche Forschungs-und Versuchsanstalt fur Luftund Raumfahrt e.V.).
SPACELAB D-2	German Spacelab Mission D-2	dedicated application and technology science mission.
SPACELAB D-4	German Spacelab Mission D-4	GIRL - German Infrared Radiation Laboratory.
SPACELAB J	Japanese Spacelab Mission	microgravity mission with emphasis on materials processing and life science experiments.
SPACENET	Southern Pacific Satellite Company Communications Satellite	a 3-axis stabilized telecommunication satellite used to provide domestic/commercial common carrier.
SPARTAN- 1	Spartan	x-ray astronomy, medium energy survey mission.
SPARTAN- 2	Spartan	study of solar physics.
SPARTAN- 3	Spartan	ultra violet imaging of a variety of sources.
SPARTAN-HALLEY		search for molecules containing nitrogen, carbon or sulfur and observes the UV spectrum between 2100 and 3400A.

SPAS-01	German Shuttle Pallet Satellite	demonstrates the utilization of the MBB platform and systems as a carrier for science experiments.
SP PLASMA	Space Plasma Laboratory	
SRL	Shuttle Radar Laboratory	aquires photographic and radar images of the Earth's land and oceanic surfaces.
SRT	Space Radiation Test (now RME)	measure gamma radiation levels in the Shuttle environment.
SSC	Solid Surface Combustion	determine flame spread mechanisms and rates over solid surfaces in the absence of gravity-induced free convection and externally imposed flow.
SSIP	Shuttle Student Involvement Projects	student projects flown on Shuttle.
STC DBS	Satellite Television Corp. Direct Broadcast Satellite	direct broadcast satellite subscription TV.
SUNLAB	Spacelab 2 Solar Telescope	study small-scale structures on the Sun's surface and measure the coronal helium abundance.
SYNCOM	Hughes Geosynchronous Communication Satellite	provides communication services from geosynchronous orbit principally to the US government.
TDRS	Tracking and Data Relay Satellite	NASA Communication Satellite.
TELESAT	Canadian Telecommunication Satellite	communication satellite built by Telesat Canada, LTD. to provide voice and TV coverage to trans-Canada network of Earth stations.
TELSTAR	AT & T Communications Satellite	AT & T COMSTAR replacement - provides communication services to the continental US, Alaska, Hawaii, and Puerto Rico.

TEMPS-III-A	Large, High Capacity Heat Pipe Radiator	evaluate on-orbit thermal performance of a heat pipe radiator element designed for Space Station heat rejection system application.
TLD	Thermoluminescent Dosimeter	obtains gammma ray measurements of the Shuttle environment.
TOPEX	Ocean Topography Experiment	remotely sense the global oceans.
TSS	Tethered Satellite System	demonstrate system capabilities by deploying and retrieving tethered satellite and measuring engineering data from payload on satellite.
UARS	Upper Atmospheric Research Satellite	study the physical processes acting within and upon the stratosphere, mesosphere and lower thermosphere.
ULYSSES	formerly ISPM (International Solar Polar Mission)	investigates the properties of the heliosphere (sun and its environment.
UNISAT (USL)	United Satellite, LTD.	British communications satellite which provides direct broadcast TV services to the BBC and the ITA.
USAT	United States Satellite Corporation	domestic communication satellite system.
USSB	US Satellite Broadcast System	provides direct to home radio and TV broadcasting.
UVAM	Ultraviolet Astronomy Mission	
UVX	Ultraviolet Experiment	measures the galactic and extragalactic contribution to the diffuse ultraviolet background radiation in the 600 - 3200 angstrom region.

VRM	Venus Radar Mapper	globally map the surface of Venus.
WESTAR	Western Union Telegraph Communication Satellite	a c-band satellite to replenish and expand the Westar system (Western Union domestic communication system).

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